



Institute of Psychology

Polish Academy of Sciences

Course syllabus

Course title	Programming PsychoPy Experiments with Python
Instructor's name	Pawel Dobrowolski, PhD
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Affiliation	Institute of Psychology, Polish Academy of Sciences
Course format	Lab Class
Number of hours	30 hours
Brief course description	The aim of this course is to provide you with the skills to program experiments using the Python programming language and the PsychoPy experiment building platform. Programming basics will be covered and applied to the design of various types of experiments.
Full course description	<p>The aim of this course is to provide you with the skills to program experiments using the Python programming language and the PsychoPy experiment building platform. PsychoPy is an open-source alternative to software such as Eprime, Superlab, Presentation, and Inquisit.</p> <p>Basic programming concepts will be covered initially (outlined below), followed by application of these concepts in successive examples of experimental paradigms. Experiment designs will be primarily based on those coming from cognitive psychology, but the lessons can be applied to any situation in which something must be presented on screen and responded to. Emphasis will be placed on methods of randomization, presentation, and timing.</p> <p>There is a vast array of available guides, tutorials, and online classes on the topic of Python. A few of them include:</p> <p>https://docs.python.org/2/ - Official Python documentation http://www.tutorialspoint.com/python/index.htm - Tutorial https://www.coursera.org/ - Several introductory programming courses based on Python are available on Coursera</p>
Learning outcomes	Upon completion of this course students will have all of the necessary skills to build virtually any type of computer based experiment.
Learning activities and teaching methods	Classes will be based on presentation of concepts followed by hands on practice. All work will be conducted on computers; bringing your own laptop will be required. Quizzes will be given each week based on what was learned the previous week. They will require the application of

concepts covered in class to solve programming challenges. Homework will provide sample exercises of the type that might be expected on the quiz.

List of topics/classes	<ol style="list-style-type: none">1. Introduction to basic computer science concepts.2. Variables, numbers, and strings.3. Basic operators and lists.4. Loops and statements.5. PsychoPy experiment script structure.6. Hands-on experiment building.7. Revision of programming concepts and exam.
Assessment methods and criteria	Students will be graded on quizzes (30%), homework (30%), and a final assignment (40%). Homework will be graded pass/fail, while quizzes will be graded on a five-point system. The final assignment will be conducted during the last class and will test all of the covered concepts. The minimum passing grade is 60%.
Attendance rules	Students may have one unexcused and one excused absence. If two unexcused absences occur, extra work may be done as a make-up. Failure to complete said work or more than two unexcused absences will result in failure to complete the class.
Prerequisites	Computer competency is a requirement . Programming knowledge is not required, but students should be comfortable with operating a computer (i.e. daily use). A strong understanding of the principles of logic are recommended.
Academic honesty	Students must respect the principles of academic integrity. Cheating and plagiarism (including copying work from other students, internet or other sources) are serious violations that are punishable and instructors are required to report all cases to the administration.
Remarks	Please come prepared to learn. This is not a class that can be passed without effort.
